Dedicated to the Era of Sail

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Anchors and Their Story

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It is convenient to divide anchors into two classes: A, those holding by weight alone such as stone, lead and iron moorings, and B, those provided with arms for holding by hooking into the ground. As a combination of these types there have also been, at certain periods and in certain localities, examples which possess hooks and at the same time are weighted with lead or stone.

A. The earliest ships were small and, even when venturing to sea, were usually drawn up on the shore at night or in bad weather. Large stones or baskets and bags filled with sand were, therefore, sufficient to hold them in emergencies. Even for the larger river craft of Egypt and Mesopotamia there are no records or representations of anchors, it being the custom to tie up alongside the banks. We are told by Herodotus, however, that stones were sometimes dragged behind boats coming down the Nile to reduce their speed and steady them in fast currents.

In early China the characters representing the word for anchor appear to imply that such objects were of stone. There have likewise been found at various points along the European and Asiatic coasts peculiar stones with holes drilled through them or with shallow grooves on their exterior surfaces supposedly for the attachment of mooring ropes.

In the earliest days of water craft fisherman all over the world must have been interested in maintaining their boats in fixed positions away from the shore. These

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We are indebted to Mr. J. Ferrell Colton for his personal help and to his book The Last of the Square Riggers. We thank Harry Stoddard for sending the photo of the PAMIR and if anyone can inform us who took the picture, due credit will be given in a subsequent issue. Thanks and appreciation to Mr. Winthrop Pratt, Jr. for his sketches of the photographs sent in by Mr. Gay.

men took advantage of the freely-offered means at hand and selected water-worn stones of a rough cylindrical shape for their moorings. The only handwork necessary was the beating out of a rough groove around the stones to take the strop of the mooring line. This was the most primitive type of anchor and held by sheer weight alone. In English they were called Strop Stones.#21.

As time progressed and perhaps because the size of the fishing boats increased, larger wedge-shaped stones were enclosed in wooden frames. The earliest frame consisted of the branched crotch from a tree embracing the two sloping sides of the stone with the ends of the forks thrust through holes in a heavier branch set across the bottom of the stone.#16 The bottom piece was driven up on the forked branches as far as possible and held in place by wedges. A rope could be passed through the upper angle between the stone and the crotch or a hole was drilled for the strop above the crotch. The projecting ends of the bottom pieces acted as rudimentary flukes to catch into the bottom. Thus these killicks, as they are called on the British Isles, were anchors which held by a combination of weight and hooking. Another primitive killick used in Norway during the Viking period by small boats is described as consisting of a stone lashed to a timber crook. #17 The most developed type of the killick with wooden frame appears to have consisted of four uprights enclosing the stone and lashed together above it. Their lower ends were wedged into holes in two heavy bottom pieces fastened across each other at right angles. These bottom pieces acted as the arms of a grapnal and their pointed ends served as flukes. #20 In later years when strap iron or grate-bars could be found by the fishermen of various localities the stones were omitted from the design of the killicks and wooden shanks were wedged in place,#18 An all iron killick, requiring some blacksmith's work, also appeared. The flat iron arms were combined to form the shank, the heavy bar was riveted, not wedged, in place and an iron ring was added for the mooring line.#19 Killicks of the various forms described, some with local variations, have been noted and studied in the British Isles, Scandinavia, Siberia, Brittany, Canada, China, Russia, Normandy, the Channel Islands, Iceland, Malay States and India. It may be seen that this idea of combining weight and hooking ability, although crude, was wide spread. It is still in use.[1]

B. The word anchor now generally signifies an instrument attaining its hold by hooking into the soil of the sea bottom, without reliance upon its weight. From the earliest reproductions it has consisted of a main shaft or shank with

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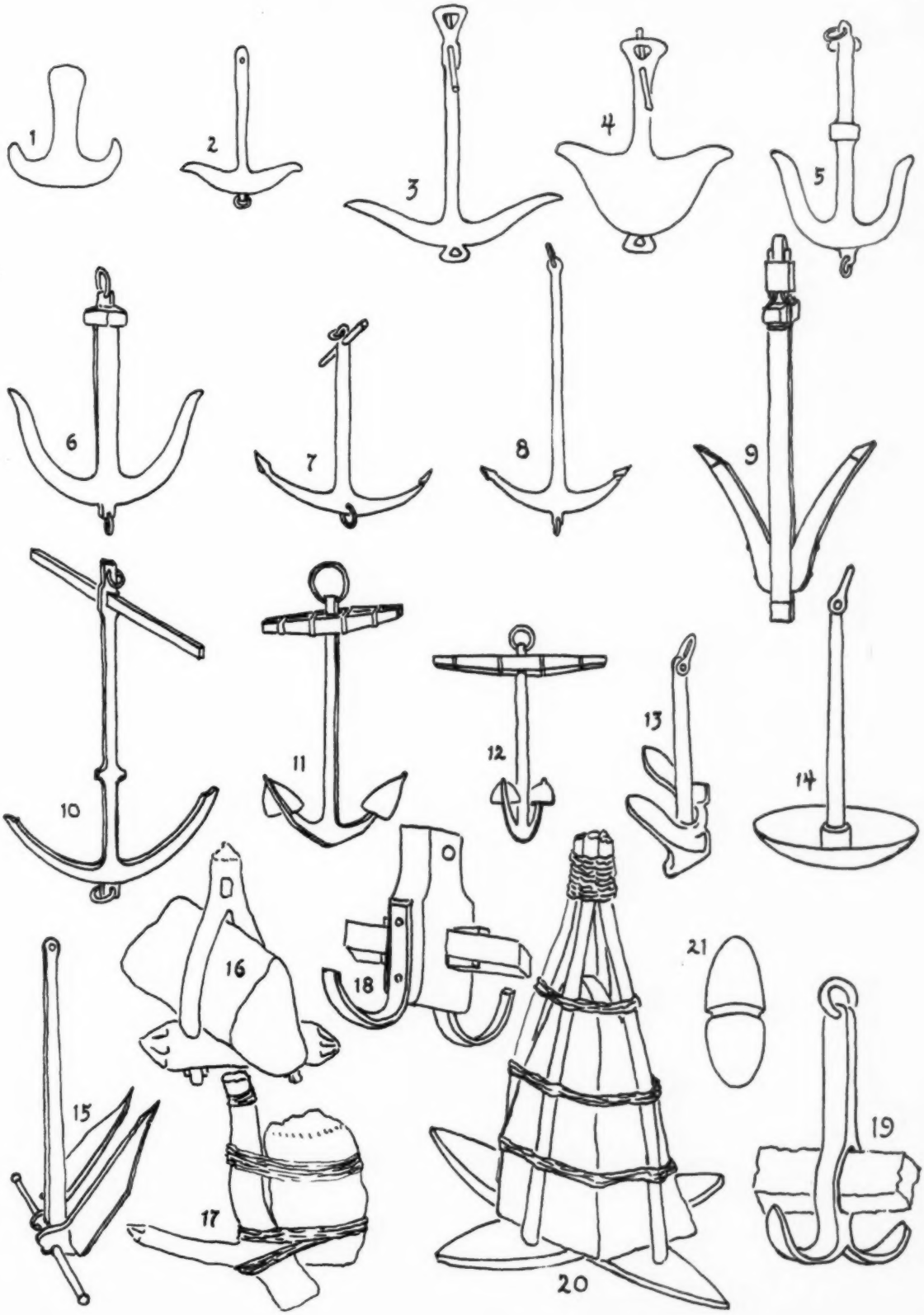
1 Morton Nance, Mariner's Mirror, Vol. 3, pp. 295-303; Vol.7, pp. 135-141
Cecil Torr, Ancient Ships, p. 70

ANCHORS AND THEIR STORY

CHARLES M. GAY.



two arms projecting from one end for holding in the soil. At the other end of the shank there may or may not be a cross bar, or stock, lying in a plane at right angles to the plane of the arms, its function being to throw the axis of the arms in a vertical position.

The anchor is first mentioned by the Greeks about 600 B.C. and its invention is attributed to Anacharsis. The earliest known representation of an anchor is on a Sardinian scarab of 600 B.C. (#2). It has a hole in the shank which may function as a ring and it has no stock. #1 is a pottery model of the Bronze Age, excavated in Malta in 1924, very much suggests an anchor in shape. It is about six inches long and its date would not be later than 800 B.C. If it does represent an anchor it is consequently about 200 years older than the Sardinian scarab. It is stockless.

#3 is from a coin of Apollonia Pontica on the Euxine, now the Black Sea. It is probably the earliest example of an anchor with stock and rings and dates from 450 B.C. The rings are triangular.

#4 is also Apollonian from a coin of 400 B.C. Its arms are very much widened. According to C. Torr in Ancient Ships the light metal anchors first used by the Athenian Navy bore weights of stone and lead fastened on by iron clamps between the arms and shank. This device may be intended in the representation here shown.

#5 is from a coin of Seleucus I, King of Syria and satrap of Babylon, 310-280 B.C. There is no indication of its being weighted and the new features are a collar in the middle of the shank and round rings loose in their holes.

#6 is from an arch of the Emperor Tiberius in Orange, France, A.D. 24. So far no representation of an anchor shows flukes or palms on the ends of the arms but many Greek and Latin writers speak of anchors as having "teeth". There is little doubt that some kind of fluke has been evolved by the commencement of the Christian Era.[2]

#'s 9 and 10 present the most reliable sources of information which we have as to the stage of development at the beginning of Christianity. These are two actual anchors, one of iron and one of wood, recovered from the waters of Lake Nemi near Rome. They were found on the bottom, after the lake was partially drained in 1930, near the sunken hulls of two galleys built by the Emperor Caligula who reigned from 37 to 42 A. D.

The shank of the iron anchor, #10, is approximately 11 ft. 8 in. long and its stock 9 ft. 9 in. wide. Its weight, 1275 Roman pounds, the equivalent of about 912 U. S. pounds, is marked on the stock. When found it was covered with a wooden sheath, thereby increasing its dimensions without appreciably adding to its weight. It consequently presented broader surfaces to prevent becoming too deeply buried in the soft mud of the lake bottom. Breaking out and weighing were therefore less difficult.

The iron anchor has a removable stock held in place by a cotter pin. Stowing on board ship is greatly facilitated, the stock lying alongside the shank in one flat compact mass. It is fitted with rings on the crown and one end of the shank to facilitate catting and fishing. It is very like the anchor patented by Captain Rodgers in England, hailed as a great novelty in 1851 and adopted by the British Admiralty in 1854.

The wooden anchor is about 18 ft. in length of oak shank with a lead stock 7 ft. 10 in. long and 8 ft. 9 in. oak arms. The shank is of oak 1 ft. 3 in. by

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2 H. H. Brindley, Mariner's Mirror, Vol. 13, pp. 5-13.

9 in. in cross section. Where the stock is attached green chestnut sticks were fastened across the shank and the lead stock was cast around them. The ends of the arms are shod with thick iron points in place of flukes.

It is recorded by ancient writers that foreign ships trading with Egypt carried light weight but bulky wooden anchors because of the muddy bed of the Nile and that a ship given to Ptolemy by Hieron of Syracuse had eight iron and four wooden anchors. The conditions of the bottom at Lake Nemi, very similar to those of the Nile, may account for the presence of anchors of both wood and iron.

The workmanship of these anchors is excellent. The heating of the iron, the rapid lifting and carrying of heavy white-hot masses of metal, the forging and carpentry would seem to require machinery which we have never credited to the Romans. The wide knowledge of seafaring matters, acquired by inheritance and experience, was handed down by word of mouth only and was probably lost with the fall of the Empire. It was not until the last hundred years that anchors returned to the practical and logical type of the anchors of Lake Nemi.[3]

Heavy bars of lead have been found upon the shores of the Mediterranean which may well be the stocks of wood anchors described above. Those found vary in length from 4 to 8 ft. and in weight from 370 to 1380 lbs. They are rectangular in cross section and are furnished with sockets to receive wooden shanks. The form of Greek lettering upon them dates them near the beginning of the Christian Era. They are therefore fairly contemporary with the Lake Nemi anchor.[4]

#7 is also an actual anchor and was discovered in Norway during the excavation of the Viking ship at Oseberg. It is of iron with flukes and rings and weighs 22 lbs. The date is about 800 A.D.[5]

#8 is from the Bayeux tapestry which depicted the Norman Conquest of England in 1066 A.D. It is represented as being carried from the ship toward the shore by a seaman wading through the water. It has flukes but no stock. However, some of the anchors shown on this tapestry are supplied with fixed iron stocks.[6]

From 1000 to 1700 A.D. there were no important changes in the fundamental design of the anchor. They had flukes, were generally entirely of iron and were made with and without stocks. Those with stocks may be considered as the heavier type. They were stowed on deck and, when needed, were cast into the sea. The stocks were fixed in place. The stockless types were lighter in weight and were carried into shallow water by hand and pressed into the bottom in a suitable place. Three and four armed grapnels were also used. The only changes as time progressed seem to have been increases in size and weight and differences in shape and proportions. Thus we find arms with but slight curves, lyre-shaped arms and arms like crescents. The angle between the arms and the shank may be very small or again almost 90° . Wood stocks became popular during the latter part of this period, made in two sections parallel to their length and clamped together around the shank with iron straps. They were usually rectangular in cross section although round stocks were sometimes used especially on merchant ships.

#11 is an anchor of 1776 A. D. The arms are nearly straight and their points make an angle of 30° above the horizon. The fluke is shaped like an isosceles triangle whose base reaches inward to the middle of the arm. The stock is an oak beam in two parts and rectangular in section. It is strongly bolted

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3 G. C. Speziale, Mariner's Mirror, Vol. 17, pp. 309-320
4 C. Torr, Ancient Ships, pp. 71-72
5 G. C. Speziale, Mariner's Mirror, Vol. 17, pp. 318
6 F. Moll, Mariner's Mirror, Vol. 13, p. 315

and hooped together with iron rings.[7]

#12 is an anchor of 1860 as adopted by the U. S. Navy at that time. The outer curve of the arms from point to point is the arc of a circle with center at 1/4 of distance from crown to end of shank. The stock may be of wood or iron and is fixed in position. Anchors with movable iron stocks, very similar to the Lake Nemi anchor, were introduced during this period and were found advantageous in stowing.

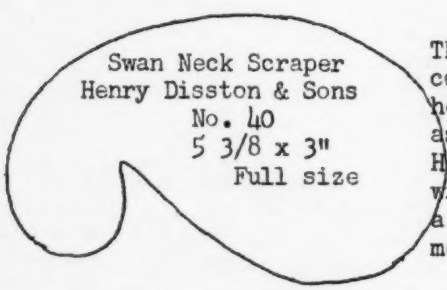
In the late 19th and early 20th centuries the conception of holding devices has very much changed. The flukes are in proportion much larger and heavier and have ceased to be merely triangular palms on the ends of the arms. They are attached to the arms close to the crown on each side of the shank and project at right angles to the arms and parallel to the shank. Each arm is only long enough to take the width of its fluke. Both flukes, therefore, engage the bottom at the same time instead of only one as in the conventional anchor. The holding power is greatly increased in proportion to weight. A hinge at the junction of arms and shank gives a slight change of angle to facilitate engaging and breaking out. Types with removable stocks and entirely without stocks have been perfected. The advantages of this design are better holding power, minimum of chain fouling and greater ease in breaking out, catting and stowing.

#13 is a modern stockless anchor of Baldt manufacture. It is simple and sturdy, the hinge being formed by a ball on the end of the shank engaging in a socket between the flukes. Lugs at the base of the flukes act as fulcrums in tripping. 1943 A. D.

#14 is a stockless mushroom anchor of great holding power but difficult to stow on shipboard when of large size. Its use is confined to the mooring of watercraft for fairly long periods. It is so employed particularly with lightships.

#15 is a modern anchor introduced by Danforth in 1939. The hinge is formed by a long heavy rod through the crown, the shank and the flukes and is in reality the stock and Danforth's patent covers the feature of having the stock at the crown.

It seems logical to assume that bare stones were the original moorings used by man. The combined stone and wood killicks of the early days may have been the first to contain the idea of the hooking device. The conventional hooked metal anchor of the shape so long employed without radical change would then be developed from the killick. On the other hand the conventional anchor with hooks may have been invented independently. In this case the killick may have been a home-made device based upon the already known mechanics of the anchor. We have not yet sufficient information for a verdict.



Aids in Shaping Hulls

The Swan Neck Scraper shown left is made by several companies. When kept polished and well sharpend, it helps in hard to get at places and the accessible ones as well. I once discussed scrapers with Lewis H. Story. He said, "I always use glass for scraping. I just hit it with a hammer and break out the curves I desire. With a little practice, you can do it very well. Here let me show you". He certainly did.

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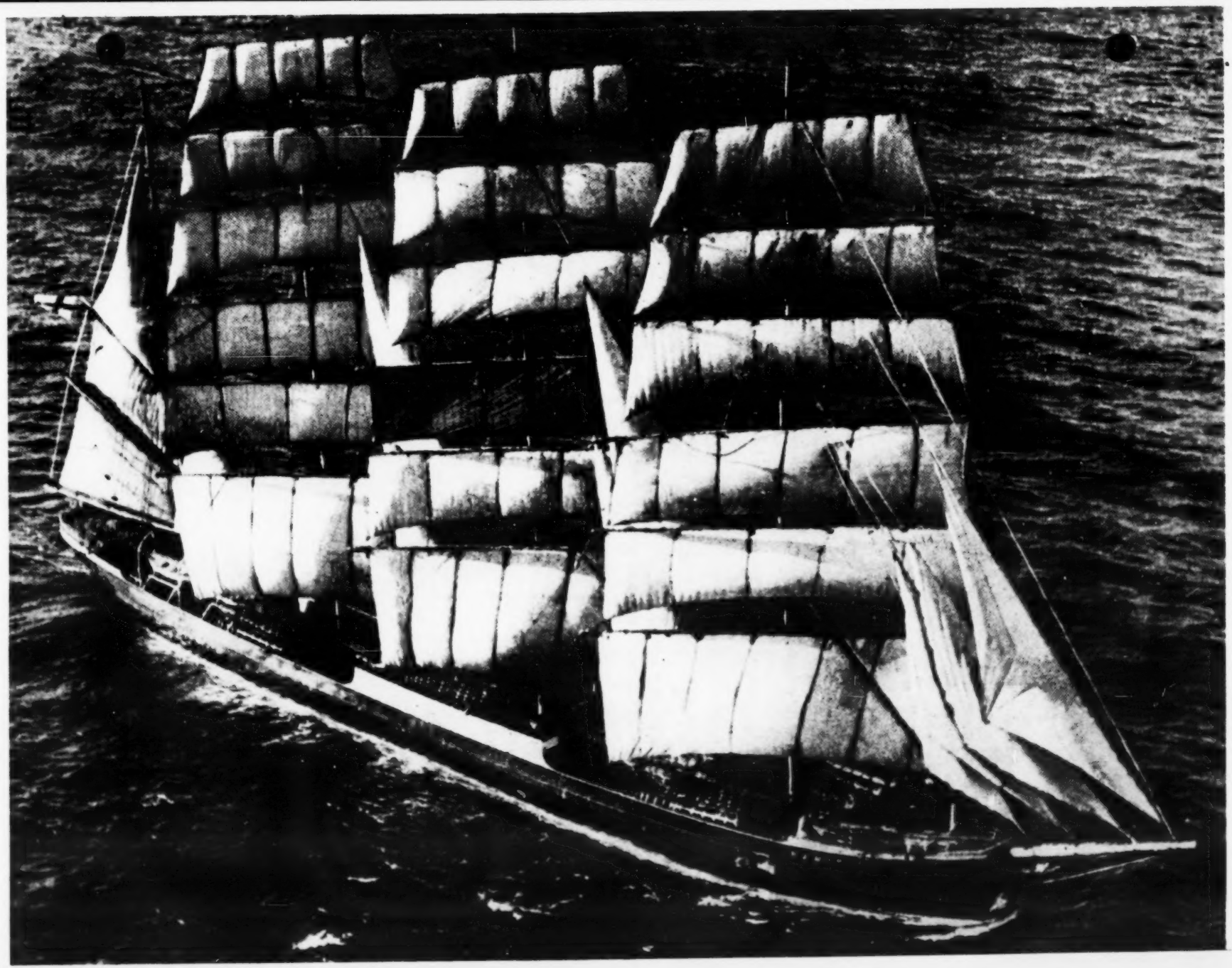
7 An Universal Dictionary of the Marine, W. Falconer, 1776



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The Last Grain Race

PAMIR and PASSAT

For their present homeward passages, Capt. Verner Bjorkfelt, formerly Master of the KILLORAN and PAMIR in 1937-1939 is in command of PAMIR. The vessel is presently on New Zealand Articles with a strongly Union crew, drawing something like L 40 per mo. PAMIR is barley laden.

PASSAT is commanded by Capt. Iver Hagerstrand, formerly Master of the bq. ZARITZA, 4m. bq. HOUGOMONT, and 4m. bq. VIKING. Capt. Hagerstrand, now on his 39th passage around Cape Horn, is presently one of the most experienced ship-masters now in sail. PASSAT, on Finnish Articles, is being run much cheaper than PAMIR this passage and is wheat laden.

The usual time of departure from Spencer Gulf ports has been January, February, and March with the vessels leaving as loaded and as weather conditions permit. Most usually the route chosen is via Cape Horn, altho, occasionally, the Cape of Good Hope way has been utilized. On the homeward voyage, the vessel generally calls either at Falmouth, England, or Queenstown, Ireland, at the Master's option, for her discharge orders. This is generally in May, June, or July.

Capt. Bjorkfelt looks back on 30 years in sail while Capt. Hagerstrand has spent 50 of his 59 years at sea. Both skippers believe this will be the last grain race.

Both ships are 4 mast steel barques, crossing royals above double topgallants and carrying double standing spanker gaffs. Lower and topmasts in one piece, with spike jiggers.

Both ships were built by Blohm and Vose at Hamburg and both were built to the order of Reederi F. Laeisz G. m. b. H. of Hamburg. PAMIR in 1905 and PASSAT in 1911. The lengths of the masts and yards of the PASSAT are main-mast: 175'; main yard: 96'; and main royal yard: 48'.

Here are the corrected passages of both vessels during their long participation in the Australian grain trade.

PAMIR		PASSAT	
1932 - Wallaroo to Queenstown . . .	103	1933 - Wallaroo to Falmouth.	110
1933 - Port Victoria to Falmouth . .	94	1934 - Port Victoria to Queenstown . .	106
1934 - Sydney to Queenstown	119	1935 - Port Victoria to Queenstown . .	100
1935 - Port Lincoln to Queenstown .	110	1936 - Port Victoria to Queenstown . .	87
1936 - Port Victoria to Queenstown .	98	1937 - Port Lincoln to Falmouth	94
1937 - Port Lincoln to Falmouth . .	98	1938 - Port Victoria to Falmouth . . .	98
1939 - Port Victoria to Falmouth . .	96	1939 - Port Lincoln to Lizard	98

PAMIR		PASSAT
3020	Tons Gross	3183
2777	Tons Net	2870
316'	Length	322'
46'	Breadth	47' 2"
26' 2"	Depth	26' 5"
16'	Poop	53'
66'	Bridge	69'
36'	Forecastle	36'

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FAST PASSAGES and the DOLDRUMS
Another letter from Bill Adams

I left Columbia in company with a smart ship called the EUPRHYSON, a very fine and lovely three skysail yarder. We were together many times, now one ahead, now the other; till we lay becalmed in the doldrums in the Atlantic. Not a breath stirring; absolute flat calm. Well, in the doldrums you can see at the same time 3 or 4 black clouds, all going in different directions, each with its puff of wind. Sometimes they are real big stiff squals. I have had to let go gallant halliards in a hurry for a doldrum squall. I have known one to come up from the port beam, send the ship along on her course at a fast clip, pass down to leeward and then come up right back in exactly the opposite direction so that we had to brace the yards around in a big hurry lest she be caught all aback. Now you may see very plainly that if two ships were becalmed in the doldrums, and one of them got caught in a fine stiff squall, while the other had still no wind whatever, the one to get the squall might well win the race. It happened often. That is one reason why a so called race is no criterion of a ship's speed. We beat her eventually, because we picked up that fine stiff doldrum squall which carried us out into the trades, while she lay in a flat clam. When we picked up that squall, she was not over 6 miles away abeam, There you are - - - I have Viller's Last of the Wind Ships, a lot of fine pictures but the rigging and sails look rather cock-eyed to a man who has known real ships. I knew a few of these big hookers, but they are too big and too unhandy and too much of the blacksmith work on them and I never had real respect for a ship with a donkey engine.

And a spanking good pay day to you,
Yours,Bill Adams

RECORD PASSAGES and ECONOMIC CONDITIONS
A Discussion

A letter to Mr. Charles F. H. Menges from Dr. Bernard Berenson.

Your remarks in the April Journal on record passages of clipper ships and the question of what some of the late steel square riggers might have done over the same course with proportionately as large a crew and as great a sail area for their tonnage - - has interested me. Your remarks are pretty well in the right and Gordon Grant's letter is along the same general lines as you must have noticed.

Howard I. Chapelle in his History of American Sailing Ships on page 50-51 discusses the matter of speed correlated with size very clearly. (See Sec'y's note below). The use of stunsails added very little to the speed of a ship, or to the speed of a long passage -- about one knot in light winds. The large crews that manned the clippers made "hanging out the washing" possible. However the big steel square-riggers did very well too, when the captains had the nerve to drive them for they had tremendously strong wire standing rigging. As a result some of the best passages were made by this group.

For instance let me mention:

1874 HALLOWEEN, British iron clipper, 90 days from Shanghai to England. (Record is 89 by Sir Lancelot from Foo-Chow.)

1874-5 BEN VOIRLICH, British iron clipper, 63 days London to Melbourne (pilot to pilot), the record being 60 days by THERMOPYLE (pilot to pilot).

1892 HOWARD D. TROUP, steel 4-mast barque, British built. Greenoch to New York, the record.

1895 ALCIDES, British steel 4-mast barque, 2700 tons, 83 days Hongkong to New York. Record 78 days by American NATCHEZ, a New Orleans packet ship.

1903 PREUSSEN, German steel 5-mast barque, 5080 tons, 57 days, the LIZARD to Iquique, the record.

1904 EUDORA, British steel 4-mast barque, 2000 tons, 57 days, 16 hours, Eddystone to Coquimbo, the record.

1933-4 PADUA, German steel 4-mast barque, 3000 tons, 66 days Hamburg to Wallaroo, Australia.

From Cape Horn by Riesenberg, one learns that only twenty ships made the passage of less than 100 days from Boston to San Francisco. These were all wooden American ships, and all but two were real clippers, and two of the clippers did the run twice in less than 100 days. Lubbock's book Last of the Wind Jammers, Vol. 1, page 108-9, mentions the passage of the YOUNG AMERICA in 1872 from Liverpool to San Francisco in 96 days which is virtually the same distance as from an East Coast port. Basil Lubbock gives the following fast passages from the United Kingdom to San Francisco and states they are the only ones he has been able to find in less than 100 days on this run.

1887-8 British iron ship MERIONETH, Cardiff to San Francisco in 96 days.

1889 British iron ship SENATOR, Cardiff to San Francisco, in 90 days.

1894 British steel, 4-mast barque EUDORA, Lundy Isle to San Francisco in 96 days.

Dr. Bernard Berenson

(Sec'y's note:) The "rule" referred to by both Dr. Berenson and Mr. Menges on pages 50 and 51 of the History of American Sailing Ships by Howard I. Chapelle is as follows: "The speed of a vessel is expressed by a numerical factor found by dividing the highest recorded rate of speed by the square root of the waterline length".

RECORD PASSAGES and ECONOMIC CONDITIONS

A letter from Mr. Charles F. H. Menges to Dr. Bernard Berenson.

As to records and fast passages, I believe, as I stated, that in order to have validity they should be based on some absolute, and it is virtually impossible to establish an absolute.

Chapelle's rule, which you mentioned, seems reasonable and it has validity to him as a naval architect. But it is usually difficult to obtain sufficient data to apply it and there are a number of other considerations -- weather, luck, etc.-- entering into any passage. Among the most important of these considerations is the basic economic consideration..

I am inclined to view from the economic angle anything relative to merchant vessels as, after all, merchant vessels are built solely to carry cargoes of various types under various circumstances -- with the expectation or hope of making money.

For this reason, I am impatient with the "net" passage figures used by some writers. If a vessel had to spend two months in Buenos Aires making repairs and

refitting or because three quarters of her crew had yellow fever and she couldn't get anough men to sail her, she took two additional months to make her passage. In letters to and from my grandfather, I have found too many references to broken charters and glutted markets to feel that a passage based on sailing time alone has any meaning.

I also wonder if driving or not driving--if carrying sail to the last moment or taking it in with a comfortable margin of safety was entirely a matter of "nerve". At any time the owners were primarily interested in a master who could make their vessel "pay", and the qualifications for making her pay varied at different times and under different competitive conditions.

During the races to California, the tea races, and the later grain races, any effort for a past passage was economically sound, as the first vessel in port was likely to get the best prices for her cargo -- sometimes by a very great margin. Under those conditions, building and rigging for speed and carrying large crews were economic necessities -- particularly the large crew, as it enabled the master to drive his ship harder, to carry sail longer, and to gamble more safely on how well his spars and rigging would hold. And that gamble, whether it paid off or not, was economically sound for the master, as it might mean the difference between a highly profitable and an unprofitable voyage.

Under other conditions, it was economically necessary to build for carrying capacity first and for speed second, to reduce sail area, and to limit the crew to the legal minimum--or less. And, under those conditions, it was no longer sensible for the master to gamble for a few days shorter passage.

Carrying a charter cargo of guano from Lobos to Antwerp, a master was under little compulsion to drive. In fact, he probably would have been a fool had he done so. It cost him $30 or $40 a day to run his vessel and he knew within probable limits how long his passage would take and whether or not it would be profitable. He might save ten or fifteen days or more on the passage but he got no more for his charter and the saved time was not worth the risk. If he carried sail too long, with his short crew he might not get it in in time or at all, and he might have several thousand dollars worth of repairs.

So, to my mind, the ships and, particularly, the masters cannot be considered better at one time than another. They were simply built and sailed under different economic conditions, and how good they were depended on how well they fitted their particular circumstances.

The Gam Chair

A VERY SOCIAL MONTH...ROBERT B. APPLEBEE, CELEBRATING HIS WIFE'S BIRTHDAY, TOOK HER FOR A VISIT TO MARINER'S MUSEUM, WHERE THEY MET MY OLD HOME TOWN NEIGHBOR, MR. JOHN L. LOCHHEAD, LIBRARIAN. EVIDENTALLY MRS. APPLEBEE HAD A GOOD TIME FOR THE MISTER "GAINED A FEW SHIP PICTURES"...JOHN SHEDD TOOK HIS LADY ON A WALK THROUGH CENTRAL PARK TO VISIT THE MARINE MUSEUM OF THE CITY OF NEW YORK AND WE WONDER IF IT WAS HER BIRTHDAY TOO...JOHN MINUSE PAID A VISIT TO JOHN SHEDD AT THE MODEL SHIP WAYS AND WROTE US ALL ABOUT THEIR SHOP...WILLIAM LEE HAS INVITED ROBERT APPLEBEE TO MAKE "A LITTLE TALK" AT THE WASHINGTON SHIP MODEL CLUB...J. FERREL COLTON OF MARITIME REVIEW FAME ARRIVED IN TIME FOR A CATCH AS CATCH CAN LUNCH AND SPENT THE AFTERNOON GAMMING OF SHIPS AND BOOKS AND PRESENTED US WITH AN AUTOGRAPHED COPY OF HIS BOOK "LAST OF THE SQUARE RIGGERS". WE PRESENTED MR. COLTON WITH A PHOTO OF BOSTON PILOT BOAT NO. 3 WHICH WAS HIS OLD SHIP...WM. N. FENERIN WENT TO TREASURE ISLAND, SAN FRANCISCO BAY, TO VISIT THE EXHIBIT AT THE TEMPORARY HEADQUARTERS OF THE SAN FRANCISCO MUSEUM OF TRANSPORTATION AND INVENTION AND SAYS: "ERIC SWANSON'S MODEL OF THE PREUSSEN STOLE THE SHOW"...DRS. ROBERT M. ROSE AND LEON MYER WILL SPEND THEIR TIME OFF AROUND THE GULF OF MEXICO AND IN AND AROUND BELOXI IN SEARCH OF RECORDS AND DE-

TAILS OF OLD GULF CRAFT....EDWIN N. RICH VISITED WITH HAROLD LESSEM IN BALTIMORE AND SAW THE ADMIRALTY MODELS AT THE NAVAL ACADEMY AT ANNAPOLIS...JOHN M. MINUSE IS HEADED FOR GLOUCESTER IN FURTHER SEARCH FOR DETAILS OF HIS BELOVED FISHERMAN, THE COLUMBIA...R. T. SEWALL, STAYS HOME ON HIS VACATIONS AND NO WONDER, HE LIVES ON CAPE ELIZABETH,MAINE AND SALT WATER IS RIGHT AT HIS DOOR STEP...MARTIN L. CASSELL, NATIONAL SECRETARY OF THE INTERNATIONAL 110 CLASS, WILL DO A LOT OF FRESH WATER SAILING THIS SUMMER. CHARLES F. DAVIS CAME SATURDAY FULL OF IDEAS OF SHIPS AND PLANS AND WENT HOME FULL OF BOSTON BEANS. YOU WILL HEAR SOMETHING FROM MR. DAVIS SOON..... CHARLES F. H. MENGES ARRIVED IN TIME FOR AN ORANGE GROVE SUPPER AND WE GAMMED OF BOOKS AND SHIPS AND THINGS UNTIL THE SMALL HOURS.

IN THESE GAMS NOTHING IS EVER SETTLED NOR DO WE COME TO A PERIOD OR A PAUSE... WE HAVE A FEW NEAR-BY MEMBERS AND WE SHOULD GET TOGETHER AND TALK SHIP SHOP. IF ANY OF THE MEMBERS COME ALONG THIS WAY THIS SUMMER THE GANGWAY IS DOWN AND THE CALL NUMBERS ARE WHITTIER 413-635....DR. HORACE K. RICHARDSON OF BALTIMORE SPENDS HIS VACATIONS ON A 65 FT. SAILING CRAFT ON THE PENOBSCOT....ANOTHER GUILD DOCTOR, DR. E. LEE DORSETT OF MAPLE GROVE, MO., SAYS THAT HE KNOWS THE MAINE COAST FROM PEMAQUID TO KITTERY AND IS GOING THERE AGAIN THIS YEAR .. WHO WOULDN'T....FRED RICE OF TACOMA INVITED US ON THE MAIDEN VOYAGE OF HIS NEW CRAFT THE WANDERER, WHICH HE BUILT HIMSELF, BUT WE MUST STAY HOME AND LISTEN TO THE ORANGES GROW....RID CARTER, COMMODORE OF THE COS COB YACHT CLUB, COS COB, CONN., WILL BE AFLOAT ABOUT ALL SUMMER...OUR LIBRARIAN, DR. BERENSON, CASTS ASIDE HIS SHIP BOOKS AND NEW BABIES AND GOES WEEKENDS ON THE WILLAMETTE AND COLUMBIA...ARTHUR RUDD IS RUDDERING ALONG ABOUT LONG BEACH, CALIFORNIA AND CATALINA ISLAND...AND THERE YOU GO..MODEL SHIPS ON THE WORK BENCH IN THE WINTER AND REAL SHIPS IN THEIR NATURAL ELEMENT IN THE SUMMER...THE SAN FRANCISCO YACHT CLUB AND THE ADVENTURE CLUB NOW HAVE NEW CLUB SONGS...CAPT. ROBINSON PASSES AROUND COPIES OF HIS CHANTEY AND ALL HANDS SING "REAP THE SHINING GOLD"....KEEP US INFORMED ON YOUR SAILING ACTIVITIES THIS SUMMER...SEND IN AN ACCOUNT OF YOUR VISITS TO THE FAMOUS MARINE MUSEUMS...ALSO SEND IN THE NAMES OF YOUR MODELS FOR THE GUILD SHIP MODEL REGISTRY, WE ARE GOING TO PUT THAT TO WORK THIS FALL...SEND YOUR SUMMER ADDRESSES...HAVE A GOOD TIME....HARRY D. HAMILTON.

INTRODUCING NEW MEMBERS

Harold F. Rayl, 1524 Oregon Ave., Steubenville, Ohio. Mr. Rayl's interest is in merchant sailing ships, and he is about to embark on his first serious attempt at modeling, a brigantine of 1854. To better equip himself for modeling, Mr. Rayl took a course in mechanical drawing at night school, which is very unlike most of us, who get a block of wood, sharpen our tools and wade in. Mr. Rayl says: "My sea experience is limited to six years in the United States Navy". We will stand by for queries from Mr. Rayl on his first model and will give all the help we can.

Mr. John J. Flynn, 1013 Ainslie Ave., Chicago 40, Ill. Over 20 years a ship modeler and his list of models for the Guild Ship Model Registry is enough to make all of us very envious. Mr. Flynn does considerable repair work and his proudest job was the repairing of three authentic French Prisoner of War bone models. The smallest was 4" long and the largest, 8" long. He runs to built up models with coppered bottoms. We would like to have the story of the three bone models and his work on them some day.

Mr. H. V. Evans, Sattenham Cottage, Godalming, Surrey, England. Mr. Evans is the organizer of the Thames Ship Model Society, London. He wrote a very interesting letter of his experiences in organizing this group, which reads like the experiences we had in organizing the Guild. The Thames Ship Model Society meets monthly on board Scot's famous ship the R. R. S. DISCOVERY. Their program for 1949 shows some prominent speakers - R. C. Anderson, Frank C. Bowen, G. G. Carr, Eric Marx and others. Also excursions to the VICTORY and the fishing ports. They have a large membership and the joining fee is two shillings and six pence.

Mr. John R. Harris, 35 Beaufort St., Southend-on-Sea, Essex, Great Britain. Mr. Harris writes: "I am quite a young man, being only 20, but nevertheless very interested in the days of sail. Having just completed two years in the Forces, I have not had much time for this fascinating study". We wish we had been interested in the days of sail at his age. We would have added many things to our nautical knowledge. We welcome young men to the ranks of the Guild and will await the queries from Mr. Harris and do our best to find the answers to them.

Queries, Answers and Discussion

Query No. 30. Guns and Carriages of Revenue Cutters, Thomas Hornsby. Information on plans of the 6, 9, 12, pdr. carriage and pivot guns as used on the United States revenue cutters during the 1830's and 40's.

Query No. 31, Robert B. Applebee. Any information on the Ice Schooners of Maine.

Query No. 32, Harry D. Hamilton. Mr. Richard E. Lawton sent in a very fine little book. It has about 40 small pages of text and about 20 folding plans. The plans of the small craft are of particular interest to me. There is only one thing about it - it is written in old Swedish. Does anyone know anyone who can translate this remarkable book. The title is : Ake Classen Ralomb, Skeps Byggerij, eller Adelig Ofnings Tionde Tom.

Query No. 33, The Baltimore Sun. Information wanted on the CHESAPEAKE which was the first steamer on the Chesapeake. Also plans or drawings and information on the gunboats which were sunk off Pig Point on the Patuxent during the War of 1812.

Query No. 34. In four interesting sections by Wayne B. Yarnall.

A. Privateering. I am interesting in obtaining a list of the masters and owners of the New Jersey Privateering vessels of the Revolution and the War of 1812.

B. Luggers. Why were luggers which were used so extensively in England and France never developed to any extent in this country?

C. Settees. Aside from being a lateen rig, was there any distinguishing characteristic? Were they developed to any extent in this country?

D. Harry Steers. Recently I obtained the lines of a very extreme Baltimore clipper schooner designed by Harry Steers, father of George Steers. Harry Steers came to America from the Isle of Jersey and worked in the Washington Navy Yard. After completing some work on the U. S. N. Schooner SHARK, 1820-21 he moved to New York. Does any one know what vessels he designed while in America and where the plans or offsets might be found?

Answer to Query No. 1, Thomas Hornsby. Small arms War 1812, such as rifles, blunderbusses, pistols, muskets, used aboard ships of war, etc. As far as is known, no blunderbusses were made by Federal contractors for use aboard ships during the War of 1812. Naval officers able to afford to do so, often provided their own side arms, but I am informed that this was not a common enough practice to be termed a rule. Marines were armed with muskets and carbines, probably same as infantry. Common seamen were not furnished firearms, but were drilled in the use of cutlass and boarding pike. For the most modern reference, see, "U. S. Muskets, Rifles and Carbines", by Arcadi Gluckman, 1948 - Otto Ulbrich Co., Buffalo, N. Y. It must be understood that the small arms used in the War of 1812 were more than likely of earlier issue. An 1812 model carbine for instance would not have been made or used in any great quantity during the War. Instances have been observed in which an 1816 model gun was actually still being made and issued as late as 1837. Probably the guns of the 1812 period were either the 1795 or 1808 issue. An ordnance manual of the period should be consulted if possible.

Answer to Query No. 19. By Thomas Hornsby and Winthrop Pratt, Jr. Mr. Hornsby: "The reeving of three fold blocks is rather hard to explain on paper so I am sending in a sample. The main thing to remember is that the planes of the faces of the blocks (upper and lower) are at 90° angles. I think they are mainly used for boat falls The sample sent is a pair of 3/16" blocks properly reeved and has gone forward to Mr. Yarnall. Mr. Pratt sent in a description of the method and this has also been forwarded. Those interested please apply direct to Mr. Yarnall.

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ANSWER TO QUERY RE: ALABAMA, BY ARTHUR M. RUDD IN SEPTEMBER LETTER 1948. IF MR. RUDD WILL WRITE MR. K. E. KRUMKE, 6711 2ND STREET, N.W., WASHINGTON 11, D. C., HE WILL FIND THAT HE HAS PLANS OF HULL No. 290 OBTAINED FROM BIRKENHEAD, ENGLAND AND IS WILLING TO EXCHANGE INFORMATION ON THE REBEL CRUISER ALABAMA.

DAHLGREN GUN. JOHN SHEBD OF MODEL SHIPWAYS WRITES THAT ARTHUR RUDD MAY BE INTERESTED IN KNOWING THAT THEY HAVE STARTED THE DRAWINGS AND ALMOST FINISHED THE BRASS PATTERNS OF THE DAHLGREN GUN WHICH THEY ARE MAKING FROM HIS DRAWING IN THE SEPTEMBER 1948 LETTER.

ANSWERS TO QUERY No. 24. MR. F. N. WILLIAMS WRITES: "I HAVE HAD THREE ANSWERS TO MY THREE QUESTIONS ON MAIER-FORM HULL, OERTZ RUDDER, AND CORT NOZZLE. ANSWERS CAME FROM DR. ROBERT M. ROSE OF NEW ORLEANS.

WANTED: COPIES OF THE SHIP MODELERS BY CAPTAIN E. A. McCANN, MAY 1932, DECEMBER 1929, JANUARY 1933.

SIGNED,
EDWIN N. RICH

SAILING GUNBOATS OF U. S. NAVY
A Discussion - Part 1
Thomas Hornsby

In rereading Mr. Yarnall's original article and the subsequent comments one gets the impression that the "gunboat policy" was a waste of time and money as far as naval effectiveness was concerned. Well, maybe it was, in comparison with the great naval actions of the War of 1812, but no one has ever belittled Arnold's campaign on the lakes, and we well remember here in Pennsylvania what the galleys did to the British in 1777 in the action off Red Bank. This attack by the British fleet was bitterly contested by the Pennsylvania row galleys and is best described by Commodore Hazelwood:

> "On the 22nd, about 4 o'clock, the attack was made on the Fort at Red Bank, in which a part of our Galleys was engaged in flanking the Enemy round the works and was of great use there; the rest of the Galleys and floating batteries were at Billingsport some time before. The ships that came was the AUGUSTA 64, the ROEBUCK 44, two frigates, the MERLIN 18, and one Galley of a 32 pounder, all of which we drove down, and in going down the AUGUSTA and MERLIN ran aground below our upper chevaux de frise, which we discovered early in the morning of the 23d. I immediately hoisted the signal to engage them and soon after the engagement became general. We had engaged our 12 galleys and the two floating batteries and all behaved extremely well; the rest of our fleet could not be brought timely to act with us. We had against us the AUGUSTA 64, who had her broadside below and aft constantly playing on us, with the ROEBUCK and two frigates and their galley;and had the ROEBUCK laid fast, she would have shared the same fate, but she was drove from the station before the AUGUSTA got on fire".

Note that in this action 12 galleys with the aid of two floating batteries had no hesitation in attacking five large enemy vessels, two of which they utterly destroyed. From this action fought in the Delaware it would be easy for American naval officers to deduce that row galleys could be very effective when well handled and used in large numbers. That they could menace and destroy a vessel many times their size, was already proven. The row galleys put the AUGUSTA and MERLIN down in the mud and silt of the bottom of the Delaware where they remain to this day, and had not circumstances allowed the ROEBUCK to escape, she would be there too. (To be continued).